



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket No. A01085A
KC/bk

In re application of:
Sanjay Chaturvedi, et al.

Serial No.: 09/927,288 : Group Art Unit: 1625
: Confirmation No.: 4959

Filed: August 10, 2001 : Examiner: Taylor V. Oh

For: IR AND/OR SM PROMOTED MULTI-METAL OXIDE CATALYST

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Commissioner for Patents
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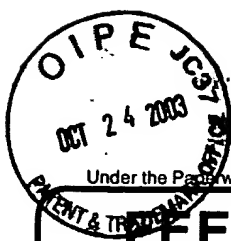
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PATENT FEE TRANSMITTAL

for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 320.00)

Complete if Known

Application Number
Filing Date Herewith
First Named Inventor Sanjay Chaturvedi, t al.
Examiner Name Taylor V. Oh
Art Unit 1625
Attorney Docket No. A01085A

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METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number
Deposit Account Name

18-1850

Rohm and Haas Company

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Credit any overpayments
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FEE CALCULATION

1. BASIC FILING FEE

Large Entity Small Entity

Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1001 750	2001 375	Utility filing fee	
1002 330	2002 165	Design filing fee	
1003 520	2003 260	Plant filing fee	
1004 750	2004 375	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	

SUBTOTAL (1) (\$)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Extra Claims below Fee Paid

Total Claims	-20** =	X		
Independent Claims	-3** =	X		
Multiple Dependent				

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 84	2201 42	Independent claims in excess of 3
1203 280	2203 140	Multiple dependent claim, if not paid
1204 84	2204 42	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ 0

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for <i>ex parte</i> reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 410	2252 205	Extension for reply within second month	
1253 930	2253 465	Extension for reply within third month	
1254 1,450	2254 725	Extension for reply within fourth month	
1255 1,970	2255 985	Extension for reply within fifth month	
1401 320	2401 160	Notice of Appeal	
1402 320	2402 160	Filing a brief in support of an appeal	320.00
1403 280	2403 140	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,300	2453 650	Petition to revive - unintentional	
1501 1,300	2501 650	Utility issue fee (or reissue)	
1502 470	2502 235	Design issue fee	
1503 630	2503 315	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 750	2809 375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 750	2810 375	For each additional invention to be examined (37 CFR 1.129(b))	
1801 750	2801 375	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 320.00

SUBMITTED BY

Name (Print/Type)	Kenneth Crimaldi	Registration No. (Attorney/Agent)	40,968	Telephone	215-592-2423
Signature	<i>Kenneth Crimaldi</i>	Date	October 22, 2003		

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GROUP ART UNIT: 1625

APPEAL NO. _____

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES**

APPEAL BRIEF

In re the Application of CHATURVEDI et al.

Filed: August 10, 2001

Serial No. 09/927,288

For: IR AND/OR SM PROMOTED MULTI-METAL OXIDE CATALYST

Kenneth Crimaldi
Attorney for Appellants

Taylor V. Oh
Examiner

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : CHATURVEDI et al.

Application No. : 09/927,288 **Group No. :** 1625

Filed : August 10, 2001 **Examiner :** Taylor V. Oh

For: IR AND/OR SM PROMOTED MULTI-METAL OXIDE CATALYST

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

This is an appeal from the rejection dated June 18, 2003 finally rejecting claims 4 and 5. The rejected claims are set out in the Appendix. Appellants filed a Notice of Appeal pursuant to 37 C.F.R. § 1.191 on September 17, 2003.

(1) Real Party In Interest

The owner of the present application and the invention contained therein is
ROHM AND HAAS COMPANY.

(2) Related Appeals and Interferences

No appeals or interferences are known to appellants, the appellants' legal representative, or the assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status Of Claims

The status of the claims is as follows:

Claims pending: 4 and 5

Allowed claims: none

Claims objected to: none

Claims rejected: 4 and 5

Claims on appeal: 4 and 5

Claims withdrawn from consideration by the Examiner: none.

(4) Status Of Amendments After-Final Rejection

No amendments were filed after final rejection of the present application.

(5) Summary Of Invention

The present invention provides a catalyst comprising a promoted mixed metal oxide having the empirical formula



wherein A is at least one element selected from the group consisting of Mo and W, M is at least one element selected from the group consisting of V and Ce, N is at least one element selected from the group consisting of Te, Sb and Se, and X is at least one element selected from the group consisting of Nb, Ta, Ti, Al, Zr, Cr, Mn, Fe, Ru, Co, Rh, Ni, Pt, Sb, Bi, B, In, As, Ge, Sn, Li, Na, K, Rb, Cs, Fr, Be, Mg, Ca, Sr, Ba, Ra, Hf, Pb, P, Pm, Eu, Gd, Dy, Ho, Er, Tm, Yb and Lu; and

wherein, when $a = 1$, $b = 0.01$ to 1.0 , $c = 0.01$ to 1.0 , $d = 0.01$ to 1.0 , $e = 0.001$ to 0.1 , and g is dependent on the oxidation state of the other elements.

(6) Issues Presented for Review on Appeal

The following issue is present for review on appeal:

Whether or not claims 4 and 5 are unpatentable under 35 USC § 112, first paragraph, for lack of enablement.

(7) Grouping Of Claims

Claims 4 and 5 stand or fall together.

(8) Argument

Regarding whether or not claims 4 and 5 are unpatentable under 35 USC § 112, first paragraph, for lack of enablement.

None of the Office Actions in the present application has presented facts to support the assertion that “undue experimentation” would be required to practice the present invention. Rejection of claims as being non-enabled requires “the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning” refuting the asserted teaching of the invention. *In re Marzocchi*, 439 F.2d 220, 224 (C.C.P.A. 1971). The Office has not met its burden to provide such evidence or reasoning. “However, specific technical reasons are always required.” M.P.E.P. § 2164.04. The rejections merely state that there are not “sufficient working examples” to support the claims. However, Applicants are not required to present any examples at all, and the C.C.P.A. has stated that the claims may be supported “either by the use of illustrative examples or by broad terminology.” *In re Marzocchi*, 439 F.2d at 223. Applicants respectfully submit that the teachings of their application provide the required support for the claims. The mere assertion that there is not “a sufficient number of compounds to support the relatively broad claims” has been rejected previously by the Board of Patent Appeals and Interferences, which reversed such an enablement rejection as “not supported by evidence, facts or sound scientific reasoning.” *Ex parte Reese*, 40 U.S.P.Q.2d 1221 (B.P.A.I. 1996).

Moreover, the Office has relied on *Ex parte Sizto* for the proposition that “any catalyst compositions” are unpredictable. Such reliance is misplaced. In *Sizto*, the B.P.A.I. upheld an enablement rejection on the basis that “enzyme and non-enzyme catalysts are so divergent.” *Ex parte Sizto*, 9 U.S.P.Q.2d 2081, 1988 Pat. App. LEXIS 26, *7 (B.P.A.I. 1988). The actual comment made by the B.P.A.I. regarding unpredictability was that the characteristics of “metal complexes and electron transfer agents as compared

to enzymes” were unpredictable. *Id.* at *7-*8 (emphasis added). Sizto’s claims merely recited “a catalyst” without specifying a particular class of catalysts. *Id.* at *1. The Board upheld the enablement rejection because one class of catalysts may behave very differently from another, i.e., because “the enzyme and non-enzyme catalysts are so divergent.” *Id.* at *7. Therefore, the holding in *Ex parte Sizto* makes no general statement about unpredictability within a particular class of catalysts. Thus there is no basis for applying *Sizto* to a situation like the present case, in which the claims recite only a single class of catalysts, i.e., the class of multi-metal oxides. Moreover, Applicants’ claimed catalysts are all within the still narrower class of iridium-promoted multi-metal oxides.

In fact, *Sizto* actually supports the patentability of the present claims. After the statements quoted above, the B.P.A.I. went on to say that “the disclosure is enabling only for claims limited to catalysts which are enzymes.” *Id.* at *9. Sizto had provided a “single example disclosing an enzyme catalyst.” *Id.* at *7. Accordingly, the Board in *Ex parte Sizto* was of the opinion that a single example of an enzyme catalyst could enable claims reciting any enzyme catalyst, of which there are millions. Applicants respectfully submit that in the present case, the solely numerical argument made in the Office Actions that the number of examples is insufficient to support Applicants’ claims simply cannot alone support an enablement rejection. Specific technical reasons are required, and have not been provided. There is no basis in the record to assert that Applicants’ claimed catalysts, which are all within the class of multi-metal oxides, could not be prepared and used by one of ordinary skill in the art.

Accordingly, the rejection is improper. Appellants respectfully request the reversal of the rejection and allowance of the pending claims.

CONCLUSION

Based on the foregoing, Appellants respectfully submit that the pending claims are currently in condition for allowance. Appellants respectfully request the Board to pass the pending claims to allowance.

Enclosed herewith, Appellants have filed a Certificate of Mailing to establish the timely filing of this Appeal Brief.

09/927,288
October 22, 2003

A01085A

The Commissioner is hereby authorized to charge any additional fee which may be required, or to credit any overpayments to Deposit Account 18-1850.

Respectfully submitted,



Kenneth Crimaldi
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October 22, 2003

APPENDIX

4. A catalyst comprising a promoted mixed metal oxide having the empirical formula



wherein A is at least one element selected from the group consisting of Mo and W, M is at least one element selected from the group consisting of V and Ce, N is at least one element selected from the group consisting of Te, Sb and Se, and X is at least one element selected from the group consisting of Nb, Ta, Ti, Al, Zr, Cr, Mn, Fe, Ru, Co, Rh, Ni, Pt, Sb, Bi, B, In, As, Ge, Sn, Li, Na, K, Rb, Cs, Fr, Be, Mg, Ca, Sr, Ba, Ra, Hf, Pb, P, Pm, Eu, Gd, Dy, Ho, Er, Tm, Yb and Lu; and

wherein, when $a = 1$, $b = 0.01$ to 1.0 , $c = 0.01$ to 1.0 , $d = 0.01$ to 1.0 , $e = 0.001$ to 0.1 , and g is dependent on the oxidation state of the other elements.

5. The catalyst according to claim 4, wherein A is Mo and N is Te.